

Order Number 301B

Facility Observation Flights under the Treaty on Open Skies

The Treaty on Open Skies is designed to promote stability, transparency, and openness among the participating states of the Organization for Security and Cooperation in Europe (OSCE). The Treaty entered into force (EIF) on January 1, 2002, and gives States Parties the right to fly over the entire territory of other treaty partners using unarmed observation aircraft equipped with imaging sensors. The data collected during these observation missions may be reviewed by any treaty partner. No territory may be excluded from observation due to national security concerns. Areas may only be excluded for legitimate safety reasons.

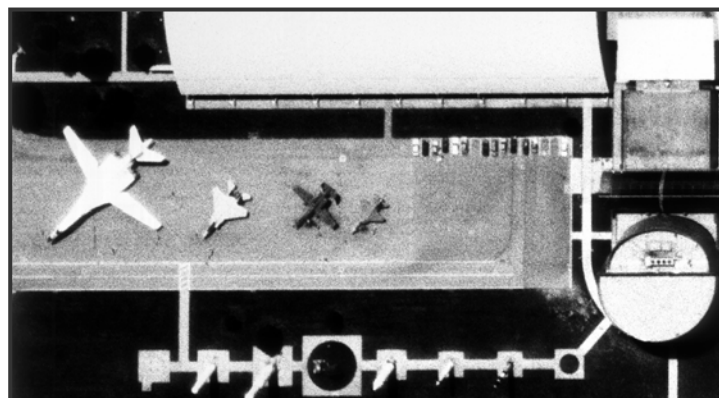
The Treaty was signed in 1992, and to prepare for eventual EIF, the United States began participating in joint trial flights in 1993. These training flights closely simulated actual observation missions and allowed the States Parties to gain valuable experience. During this time, the Open Skies Division at the Defense Threat Reduction Agency (DTRA) developed an early warning notification system for alerting subscribed facilities when an observation mission is about to occur.

When a foreign observation flight crew arrives in the United States, their proposed mission plan is provided to U.S. officials. This information is entered into the Passive Overflight Module (POM), which is a sophisticated mission-planning system that allows DTRA personnel to identify which facilities may be subject to observation. Notifications, in the form of voice, fax, or pager messages, are then transmitted by the Telephone Notification System (TNS) to the hundreds of facilities in the Open Skies data base. Forewarned facilities can then take appropriate measures to minimize any risks or disruptions to their schedules and operations.

Observation aircraft are equipped with treaty-approved sensors meeting specified resolution limits. These are listed in the following chart:

| Imaging Sensor | Resolution Limit |
|---|------------------|
| Optical panoramic and framing cameras | 30 centimeters |
| Video cameras with real-time display | 30 centimeters |
| Infrared line-scanning devices (Began Jan 2005) | 50 centimeters |
| Sideways-looking synthetic aperture radar (SAR) | 3 meters |

Although sensor resolution is constrained, observation aircraft fly at low altitudes and are able to collect images not available from satellites. Synthetic aperture radar (SAR) permits missions to be conducted in inclement weather or at night. Oblique observation angles and near-simultaneous looks obtained from multiple on-board sensors are other capabilities not available from satellites. Also, the resolution of commercial infrared satellites is not nearly as high as that of the Open Skies infrared sensors.



Sample of Open Skies Imagery

Facilities should carefully assess the potential risks associated with observation flights. All outdoor activities such as research, development, testing, evaluation, and modification programs involving aircraft, helicopters, ships, tanks, and other vehicles are subject to imaging. Signatures or indicators such as plant layouts, power sources, ventilation systems, cooling ponds, and pollution-affected vegetation could potentially reveal national security, proprietary, or other sensitive information to a highly skilled analyst. In addition, certain types of facilities such as satellite, rocket, and missile launch facilities, could have ongoing or scheduled activities that might interfere with aircraft navigation or endanger flight safety.

In many cases, potential problems can be avoided by simply covering an item of concern or moving it inside prior to an observation mission. In other cases, additional security countermeasures may be appropriate. For assistance in assessing your facility's vulnerabilities and in selecting and applying security countermeasures, or for additional information on the Treaty on Open Skies or other arms control treaties, contact the DTIRP Outreach Program coordinator at 1-800-419-2899, your local Defense Security Service (DSS) Industrial Security representative, or your government sponsor.